

**REMARKS**

Applicant appreciates the Examiner's thorough consideration provided the present application. Claims 1, 2 and 4-15 are now present in the application. Claims 1 and 6 have been amended. Claim 3 has been cancelled. Claims 1, 6 and 11 are independent. Reconsideration of this application, as amended, is respectfully requested.

**Claim Rejections Under 35 U.S.C. § 102 & 103**

Claims 1-11, 14 and 15 stand rejected 35 U.S.C. § 102(e) as being anticipated by Hiyama, U.S. Patent No. 7,084,850. Claims 12 and 13 stand rejected 35 U.S.C. § 103(a) as being unpatentable over Hiyama in view of Kawahara, U.S. Patent Application Publication No. 2001/0028347. These rejections are respectfully traversed.

Independent claim 1 has been amended to recite a combination of elements including "an image generation means for generating a still image and its duplication but with adjustable motion vectors, and then for providing an interested display to show the above-mentioned two images at the same time; wherein the still image can present the gray level capability of the display while showing still images; an examination means for determine the effective number of gray levels of the display while showing motion images from the above-mentioned motion image; wherein the motion image is the duplication of the still image but with adjustable moving speed and direction."

Independent claim 6 recites a combination of elements including "a visual simulator for simulating visual detection and recognition; and an image generation means for generating a still image and its duplication but with adjustable motion vectors, and then for providing an interested

display to show the above-mentioned two images at the same time; wherein the still image can present the gray level capability of the display while showing still images; an examination means for determine the gray level capability of the display while showing motion images from the above-mentioned motion image which is a duplication of the still image.”

Independent claim 11 recites a combination of steps including “generating a still image and its duplication but with adjustable moving speed and direction, the duplication is referred as a motion image hereinafter, by an image generating means first, and then showing the images on the screen; adjusting the moving speed and direction of the moving image; and determining the discrimination of adjacent gray levels of the moving image.”

Applicant respectfully submits that the above combinations of elements and steps as set forth in independent claims 1, 6 and 11 are not disclosed nor suggested by the references relied on by the Examiner.

Hiyama discloses an image display system having an image display unit and a control unit for outputting image information to said image display unit. The control unit comprises a block discrimination circuit portion for discriminating a state of said image information amounting to one frame among the image information in a pixel block unit, an image processing portion for processing said pixel block unit including said image information based on a discriminated result of said block discrimination circuit portion, a storage portion for storing said image information processed by said image processing portion, and a synchronizing signal generation portion for reading said image information from said storage portion, controlling a clock in accordance with the read image information, and outputting the read image information to said image display unit, wherein said image processing portion processes said pixel block unit

such that either each of a plurality of pixel block areas included in said pixel block unit is rewritten for each of a plurality of frames, or each pixel block area remains the same for a plurality of said frames.

It is respectfully submitted that, in Hiyama, *the moving picture is not a duplication of the still image*. While the smaller resolution and smaller graduation are applied to reduce the data information of the moving pictures, this does *not imply* that the moving picture is a duplication of the still image.

Further, Hiyama in Fig. 12 and col. 10, line 66 – col. 11, line 6 describes the broadcasting station 600 as having *a moving picture 601 being taken by a TV camera, a still picture 602 being picked up by a digital still camera and CG*, for example, in which respective image data are held in the memories 601A and 602A, and a picture 603 composed of the moving picture and still picture produced in accordance with the purpose. The image data is compressed and arranged by the methods of the embodiments 1 to 8. In this example, *it is clear that the moving picture 602 is not a duplication of the still image, since the moving picture and the still image are each taken by a completely different apparatus (i.e., the moving picture 601 by a TV camera and the still picture 602 by a digital still camera)*. Accordingly, it would not be possible for the moving picture to be a duplication of the still image in Hiyama. This is unlike the present application. As is seen in Fig. 2b of the present invention, the image generating means generates a still image (205) and its duplicate image (207) with adjustable motion vector (including speed and direction) on the interested screen (200).

Accordingly, in comparing the figures of the present invention and their detailed descriptions with those of Hiyama, it should be clear that these two inventions are not

comparable. In Hiyama, the moving picture is taken from a TV camera, so the content thereof (a TV program, for example) differs from the still image, which is taken from a digital still camera. In the present invention, the moving image 207 is a duplicate of the still image 205, and what changes is the position of the moving image 207 on the screen, since it moves with a pre-determined velocity.

Hiyama delivers a high speed transmitted format, and, therefore, uses lower resolution or smaller number of graduation to reduce the data information of the moving picture 601. It is very trivial that the number of gray level is reduced by  $2N$  if  $N$ -bit is dropped. Thus, the gray level reduction has nothing to do with display response time.

The present invention, however, *measures or examines the real reductions* of the number of graduations caused by inadequate response time of the display. Accordingly, the so-called “real number” of graduations of the display means that the number of graduations can be discriminated visually while the display is showing the moving pictures. The real number of graduations that human eyes see cannot be determined simply by the data-depth, i.e. the bit number of data, but also depends on the response time of the display. To enable the reduction of graduations to depend on response time only, the data-depth of the content in the moving window 207, as shown in Fig. 2b, should be exactly the same as that in the still image window 205. Then, the present invention can examine the reduction of graduations caused by response time of the display, which does not determine the reduction caused by lower data-depth during compression.

It is therefore respectfully submitted that Hiyama fails to teach or suggest at least generating a still image and a moving image, the moving image being a duplication of the still

image with adjustable motion vectors, or using the moving image to determine the effective number of gray levels of the display while showing moving images, as is recited in independent claims 1, 6 and 11 of the present application.

In addition, Hiyama also fails to teach “the motion image is the duplication of the still image but with adjustable moving speed and direction” as recited in amended independent claim 1.

With regard to the Examiner’s reliance on Kawahara, this reference has only been relied on for its teachings related to some dependent claims. This reference also fails to disclose the above combinations of elements and steps as set forth in independent claims 1, 6 and 11. Accordingly, this reference fails to cure the deficiencies of Hiyama.

Accordingly, neither of the references utilized by the Examiner individually or in combination teaches or suggests the limitations of independent claims 1, 6 and 11 or their dependent claims. Therefore, Applicant respectfully submits that claims 1, 6 and 11 and their dependent claims clearly define over the teachings of the references relied on by the Examiner.

Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. §§ 102 and 103 are respectfully requested.

## CONCLUSION

Since the remaining patents cited by the Examiner have not been utilized to reject the claims, but merely to show the state of the prior art, no further comments are necessary with respect thereto.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant respectfully petitions for a three (3) month extension of time for filing a response in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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